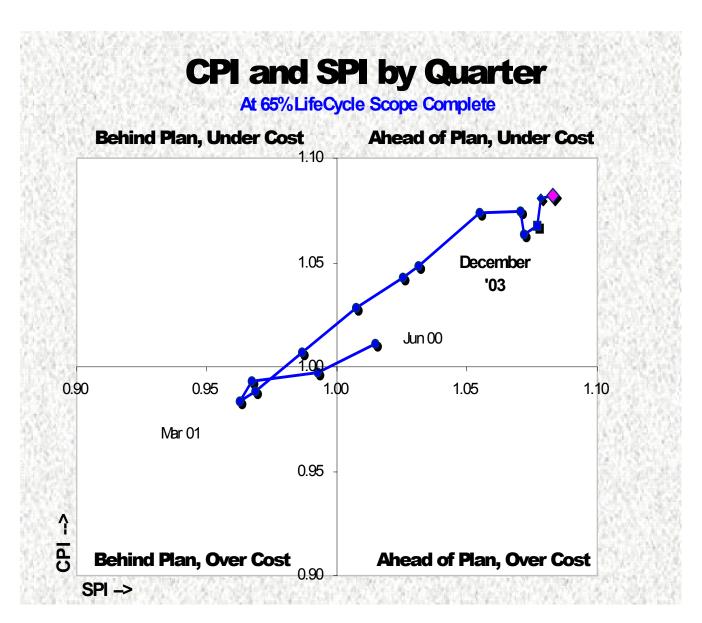
# RFPO RFETS Total Project Report

# 1<sup>st</sup> Quarter, FY04 October - December, 2003



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# **Executive Overview**

**In General:** K-H has completed work activities below the estimated cost and ahead of schedule for the previous 2 years and the project is now more than 65% complete. During the first quarter, the Closure Project completed more than \$21M more work than was planned, and accomplished it for nearly \$14M under the budgeted cost. Slight gains in the project's positive cost and schedule variances were made again this quarter. K-H continues its emphasis on working safely and maintaining compliance with procedures to ensure safe operations.

**Key Accomplishments:** During the 1<sup>st</sup> quarter, more than 38 facilities and structures have been eliminated from the site including the last of the Site's four guard towers, and the 300,000-gallon Domestic Water Storage Tower which has been a landmark at the site since 1952. All energy sources to B776/777 were severed, B776 finished removing its last Mixed Residue piping system, and ~45% (9,800 ft) of steam lines have been removed to date. The Waste program continued to accelerate shipping of Low Level (~20,000 m³), Low Level Mixed (~3,000m³), and TRU Waste (~900m³), and completed the disposal of Solar Pond Sludge. The Environmental Remediation project completed excavation, sampling, and backfill activities at the 903 Pad Project.

METRIC			
Safety:  Bears Watching	Offsite Hospitalizations: 7 Lock-Out-Tag-Out Violations: 1 Potential Rad Intakes: 0 Rad/Haz Transport Incidents: 3  Contact with Energized Source: 2 Skin Contaminations: 5		
Cost: On Plan	Cumulative Cost Variance = +8%, +\$195M out of ~\$2,575M BCWP <sub>CUM</sub> LIFECYCLE: 65% of target scope completed; 60% of target cost expended - continues positive performance.		
Schedule:  On Plan	Predetermined Work Activities SV = +61%,+\$159M  LIFECYCLE: 23% of scope scheduled; 37% of scope completed  Traditional Schedule Variance = +8%, +\$198M  LIFECYCLE: 60% of scope scheduled; 65% of scope completed - continues positive performance.		
Critical Path  Completion Date: On Plan	CP = <u>B371 D&amp;D</u> Estimated Completion Date: <u>December 15, 2006</u> The working plan critical path has remained stable for close to a year. The contractor continues to examine critical path activities for acceleration opportunities. RFPO is continuing to use the original Target Date, December 15, 2006, as the ECD.		
Current CP: On Plan	57% (47 months) of target contract duration elapsed.		
Key Milestones  DNFSB: On Plan  RFCA: FY04 Complete	Closure Activities: During the first Quarter 2004, 21 reportable structures were decommissioned, along with 17 other, miscellaneous structures. Demolitions recorded this quarter included: the 116 Offices, Portal 1, the 557 Guard Post, the drum storage and certification building (668), and the 300,000-gallon Domestic Water Storage Tower. Also this quarter, the 903 Pad Project has been completed.		
	DNFSB: – The Site continues to work issues related to the B-371 glove box fire. Work also continues on DNFSB 2001-2 software quality improvements.  RFCA FY03 Milestones: All milestones completed for 2004		
GFS/I Status: On Plan	GFS/I requirements are being met and/or are in process except as noted here:  Need DOE receiver site for all Low Level Mixed Waste Orphans between 10 and 100		
Forecast: Bears Watching	nanocuries/gram.		

# **Executive Summary**

#### **Contract Status**

TC: 3.973B (Original: 3.963) TF: \$340.8M (Original: \$340M) TCD: 15 December 2006

#### **Fee Payments**

As of December 31, 2003, RFPO has made fee payments to K-H of \$ 115,648,794 under the provisions of the Site Closure Contract. The contractor has requested no fee deferrals under this contract.

#### **Penalty Assessment**

No Fee Penalties were issued this Quarter. To date, four fee penalties have been issued under the terms of this contract with total penalties equaling \$510,000.

#### Requests for Equitable Adjustments (REAs):

K-H submitted a new REA, *SNM Removal Impacts*, estimated at \$0.5 million. Only relatively minor impacts were caused by GFS/I issues. WIPP/WAC Part III was reduced by \$1.6M to reflect agreed cost changes and now includes only FY02 costs. An additional REA with FY03 costs will be submitted. The National Emergency REA (Part I) remains under HQ review. The *PuSPS Moisture Measurement* REA is pending fact finding, and the cost estimate increased by \$100k. No REAs have been incorporated into the contract since July of 2002.

# Pending (Submitted) REA's: ~ \$31.5M

- ~ \$16.4 million: National Emergency (2000 2002 Costs)
- ~ \$4.2 million: WIPP WAC Part III (2002 costs)
- ~ \$5.2 million: Disposition of Pu Components
- ~ \$2.7 million: PuSPS Moisture Measurement
- ~\$3.0+ million in these miscellaneous REAs:
   System Engineers/B371 VSS,
   NTS Waste Acceptance Criteria
  - PuSPS outside SRS Requirement Beryllium Monitoring SNM Removal Impacts



#### Safety

# 8 Events of "Significant Concern" or Above

During the last quarter, eight events were classified at the level of Significant Concern. This amounted to approximately 4% of total number of events during the quarter, up from 3% last quarter. The events occurred in the following functional areas: radiation protection (1), occupational safety and industrial hygiene (5), Waste Management (1), and Fire Protection (1).

This quarter, there were seven cases requiring off-site medical Care, five incidents of skin contamination, one incidence of and administrative error in the LOTO process, two events involving a potential for contact with an energized source, and three Rad/Haz transport incidents. There were no incidents of potential internal dispositions this quarter. *See discussions on page DO-3*.



#### **GFS/I Performance**

Most requirements for accelerated closure have been and continue to be met. The key remaining issue is the identification of disposal sites for LLMW between 10 and 100 nCi/g activity - possibly a breakthrough in the availability of either NTS or Hanford.

Until a disposal option is identified, these "orphans" may need to be stored offsite at increased cost. Some may be returned to the site after treatment, with the possibility of negatively impacting the closure schedule.



#### Critical Path ECD: 15 December 2006

The remaining Critical Path continues to run through B371 D&D, followed by site grading. RFPO is monitoring the critical path and near critical path activities and for the foreseeable future will continue to utilize December 15, 2006 as the estimated completion date.

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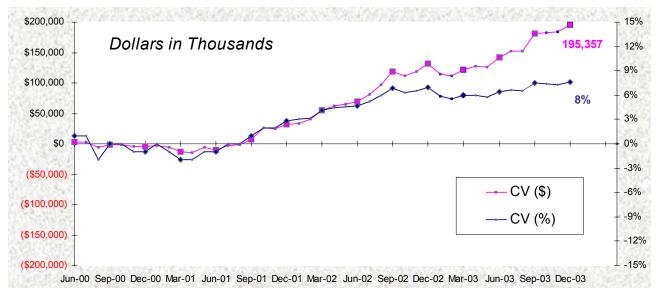
#### Cost

Cost Variance +7.6%, +\$195M

LIFECYCLE: 65% of scope completed; 60% of target cost expended

During the first quarter of Fiscal Year 2004 (1QFY04), cost performance improved from 7.5% to 7.6%. Cost Variance for target activities improved by about \$14M during the quarter, less than the usual quarterly CV, but typical for the first quarter of a year. Over all cost savings on the Project to-date remains significantly positive, with over \$195 million in accumulated cost savings, up from \$181M at the close of FY2003.

#### **Cumulative Cost Variance Over Time**



**NOTE**: Currently, the closure project has accumulated \$28.1M in non-target Site Closure (EY06) and Safeguards and Security (FS30) costs. These non-target costs are generally the result of technical direction and may eventually be considered as part of potential Requests for Equitable Adjustment, and / or will impact cost variance.

# **Cost Performance by PBD:**

Proj	ect Description	BCWP	ACWP	CV (\$)	CV (%)
1A	371 Complex Project	314,784	361,353	(46,569)	-15%
1B	707 Complex Project	186,769	195,480	(8,711)	-5%
1C	B771/774 Closure Project	219,546	219,839	(293)	0%
1D	B776/777 Closure Project	188,856	179,302	9,554	5%
1E	Industrial and Site Services Project	493,491	382,812	110,679	22%
1F	Material Stewardship Project	571,653	566,220	5,434	1%
1G	Remediation Project	115,820	55,217	60,603	52%
1H	Engr., Environ, Safety & Quality	164,149	144,916	19,233	12%
1J	Support Project	320,142	274,716	45,427	14%
	Project Totals	2,575,212	2,379,855	195,357	8%

Includes all target fund sources: EY06, FS30, EW09, GG08, NN61 and YN01 (EW05 was recast to EY06 and FS40 recast to FS30 beginning in FY04)

Although PuSPS operations have completed, that cost account is responsible for over 70% of the negative cost variance in PBD A (B371) with more than \$33M of the \$46.5M in negative cost variance for this PBD. Facilities Management is expected to continue to run negative cost variances due to the delays caused by PuSPS operations. Activities in this PBD continue to dominate the critical path. With \$122M in remaining workscope, it is estimated that at least \$24M of the negative cost variance in this PBD is unlikely to be recovered.

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## **Schedule** (Predetermined Work Activities)

 $SV_{PWA}$  (+\$159M, +61%)\*

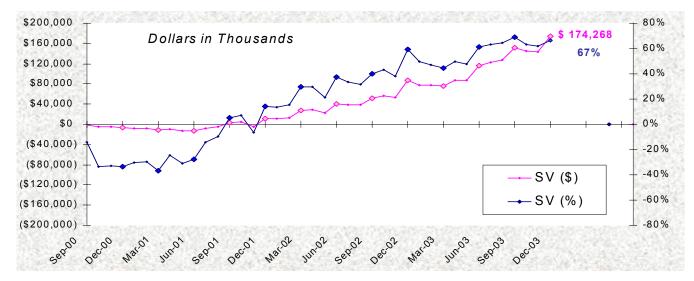
At the end of this first quarter, 23% (\$262M) of the PWA scope was scheduled for completion (lifecycle), and 37% (\$421M) was actually completed. The Rocky Flats Project Office validated that K-H completed \$51.6M in PWA work scope during the quarter - \$8.5M more than was planned.

Through this quarter 57% of the contract duration has elapsed (47 out of 82.5 months), and ~65% of the total project scope has been performed.

Other indicators of schedule performance include Traditional Schedule Variance, Modified Milestone Schedule variance and P3 estimated completion dates. The Traditional Schedule Variance and Modified Milestone Schedule Variance are +\$195M (+8%) and +\$189M (+26%) respectively. Kaiser Hill's P3 estimated completion date is nearly thirteen months ahead of the target date of December 15, 2006 (RFPO continues to use December 15, 2006 as the estimated completion date while it monitors the contractor's ambitious schedule). These other indicators are further discussed in Appendix D.

\* These are the validated RFPO figures

## Validated Schedule Variance on Predetermined Work Activities



# **PWA Schedule Performance by PBD**

	Project Description	BCWS	BCWP	SV (\$)	Change from last QTR	SV (%)	Change from last QTR	DELTA RFPO - KH BCWP**
1A	371 Complex	53,668	58,004	4,336	2,103	8%	4%	- 364
1B	707 Complex	52,069	64,155	12,086	(2,701)	23%	-9%	0
1C	B771/774 Closure	55,276	59,241	3,965	(5,696)	7%	-13%	0
1D	B776/777 Closure	40,238	52,805	12,567	(6,724)	31%	-29%	0
1E	Industrial and Site Services	3,291	33,043	29,752	12,274	904%	373%	0
1F	Material Stewardship	45,833	95,758	49,925	1,108	109%	-17%	0
1G	Remediation	11,382	58,218	46,836	8,177	411%	-1959%	- 9,752
	Project Totals	261,758	421,224	159,466	8,541	61%	-8%	- \$10,116

\* \$4.7m in EV for PBD F was over-reported in KH's reporting System this quarter.
The over-claimed EV was not submitted to RFPO for validation / fee purposes, but will be evident in a difference in reported EV statistics.

\*\*All values are cumulative-to-date

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#### **Key Milestones**

CLOSURE ACTIVITIES: During the first Quarter 2004, major strip out work in B991 & B881 continued and asbestos abatement preparations began in the steam plant. All energy sources to B776/777 were severed, B776 finished removing its last Mixed Residue piping system, and ~45% (9,800 ft) of steam lines have been removed to date. In all, 21 reportable structures were decommissioned this quarter, along with 17 other, miscellaneous, structures. Demolitions recorded this quarter included: the 116 Office building, the South Breezeway (Portal 1 to B750), the 557 Guard Post and three Storage Vaults for Building 991, the 984 TRU waste storage facility, the drum storage and certification building (668), trailers T115A & C, the last of the Site's four guard towers, and the 300,000-gallon Domestic Water Storage Tower which has been a landmark at the site since 1952. In the ER area, the 903 Pad Project completed, a WIPP audit was completed for the 903 Pad with no findings, and an NFA was approved for the 904 Pad.

<u>DNFSB COMMITMENTS</u> – The Site continues to work issues related to the B-371 glove box fire. Work also continues on DNFSB 2001-2 software quality improvements.

<u>RFCA MILESTONES</u> – Due to the dramatic and successful progress to-date, Earned Value targets are no longer tracked with the regulators. The five out-year Tier One milestones which name key remedial and decommissioning activities have been retained. There is no Tier One milestone for 2004. Progress against all out year milestones is on or ahead of schedule.

<u>STP MILESTONES</u> – RFETS has 7 STP milestones for FY04. We are currently on track to meet all of the FY04 Milestones, and assuming that all FY04 milestones are successfully met, only two waste streams will require disposition in FY05.

#### Additional REA Information

To date, RFPO has received a total of 22 REAs requesting approximately \$41.8M (about 1.1% of total project cost) in upward adjustment to target cost. Ten REAs have been incorporated into the contract increasing the Target cost by \$10.2M.

#### **Potential REAs**

- ~ \$6M \$9M: National Emergency (FY 2003costs)
- ~\$5M \$20M: Remediation Waste Disposition

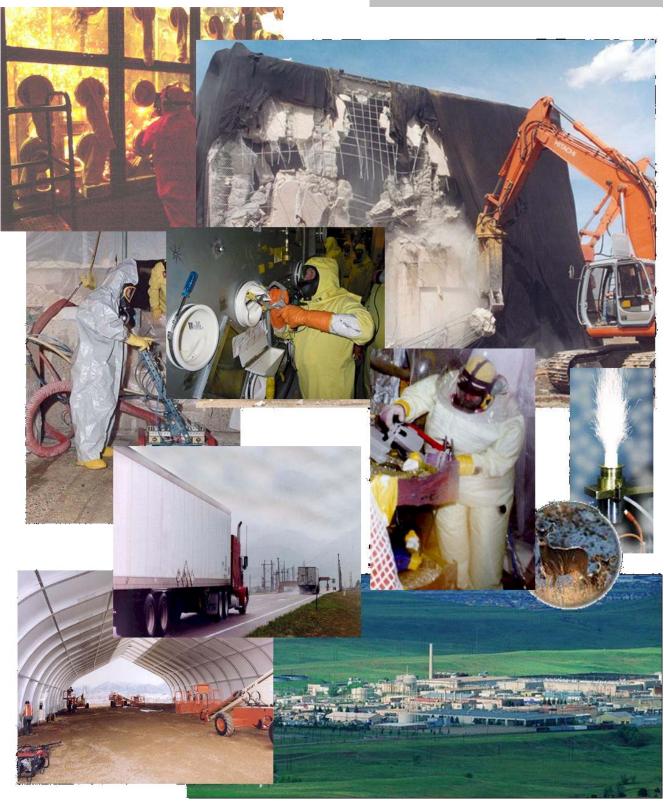
Total Potential REAs: ~\$11 - 29 million

# **Project Risk Report**

DOE and K-H continue to work vigorously to eliminate/mitigate potential schedule or cost impacts. The ability to safely perform work remains the most critical project risk and receives constant attention. Lapses in safe work practices could easily result in unrecoverable schedule delays and associated cost growth.

Receiver sites and treatment requirements for some Low-Level Mixed Waste (LLMW) have not been confirmed and confirmation is needed in order to permanently remove these materials from the site. Removal of orphan LLMW is a near-critical path activity that could soon be driving the project completion date.

# **Detailed Overview**



**Detailed Overview** 

# **Safety**

Ed Westbrook x 7074

# **B.6 Safety Analysis**

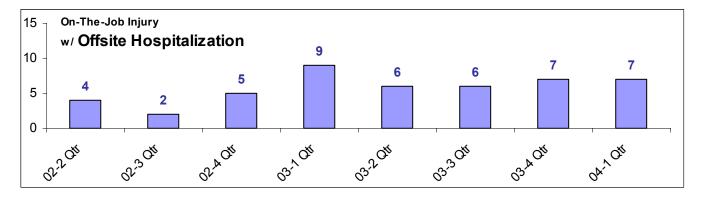
There are no reported incidents where the B.6 safety criteria were exceeded (and contractual actions taken) during the first quarter of FY 2004.

# **Events of Significant Concern**

During the last quarter, eight events were classified at the level of Significant Concern. This amounted to approximately 4% of total number of events during the quarter, up from 3% last quarter. The events occurred in the following functional areas: radiation protection (1), occupational safety and industrial hygiene (5), Waste Management (1), and Fire Protection (1). Two of these incidents were recorded to capture an increasing trend of events involving heavy equipment (fork trucks, man-lifts, front-end loaders, etc.) where spotter inadequacy or operator error led to or contributed to an event in which contact was made with items and/or personnel and resulted in damage, injury or an adverse impact on the safety of the work.

# **Key Indicators:**

Beginning in the second quarter of fiscal year 2003, status on the indicators below has been included with this report. The working definitions and reporting levels for these indicators are included in each narrative.

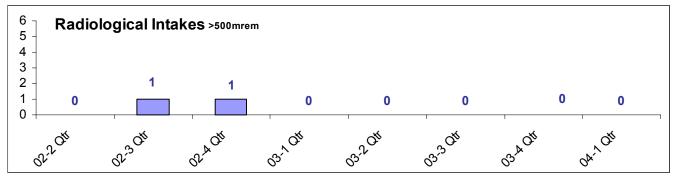


#### **Off-site Hospitalizations:**

On-the-job injuries where an individual was taken to the hospital for something other than observation.

In the last quarter, seven (7) on-the-job injuries have required offsite transportation for medical care. In most cases, the cause is attributable to personnel error or failure to follow procedures. Incidents include four falls of four feet or less (where safety restraints were not required), a finger pinching, two cuts from metal doors, and one incident where an employee walked into a piece of machinery. One of these events was reported as a Significant Concern; while attempting to reconfigure debris loaded in to the bed of an end-dump truck, an employee fell from the side of the truck to the ground. (The employee's waist was approximately 4 to 4.5 feet off the ground). The resulting injury, which required hospitalization, included a broken femur, hip, and wrist.

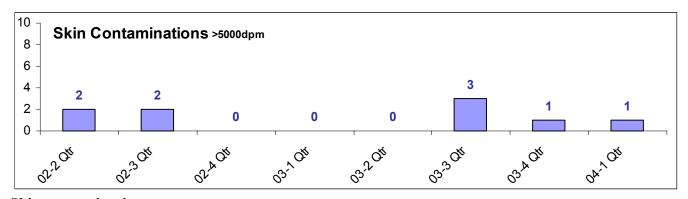
Ed Westbrook x 7074



#### **Radiological Intakes:**

Any internal deposition in an individual greater than 500mrem. Data currently includes unconfirmed, potential intakes.

The ORPS reportable level for Radiological Intakes increased from 100mrem to 500mrem. There have been no incidents of potential internal dispositions at any level this quarter.



#### **Skin contaminations:**

Any radiological contamination of an individual's skin greater than 5,000dpm per 100cm2, or any external contamination found on an individual outside of an RBA (Radiological Buffer Area).

Five (5) incidents of skin contamination were reported during the last quarter. Only one (1) incident exceeded the new ORPS reportable level (greater than 5,000 dpm), and another exceeded the reporting level established under the Closure Contract (greater than 1,000 dpm).

In the first incident, 12,000 dpm/100cm2 of contamination was discovered on the left arm of a D&D worker exiting from Building 371. The worker was decontaminated to 240 dpm/100 cm2 in the facility, and was completely decontaminated at site medical facilities. A review of the incident could not conclusively determine how the worker came into contact with the contamination.

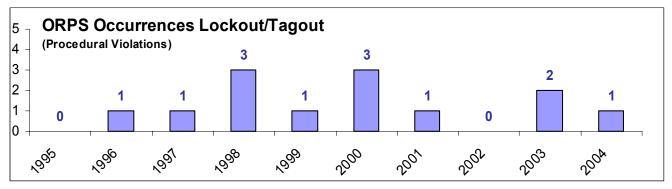
In the second incident, a metal shard penetrated the glove of a worker in a B371 glovebox resulting in 1,960 dpm removable alpha contamination on his left hand. The employee's hand was decontaminated in the facility.

Because of concerns raised by the Rocky Flats Field Office in August 2003 regarding the excessive number of skin contaminations, Kaiser Hill issued a sitewide corrective action plan to improve the negative trend in contamination events. A Joint Contamination Minimization Team provided recommendations to reduce the occurrence of this type of event.

**Detailed Overview** 

Safety CONT.

Ed Westbrook x 7074



## LockOut/TagOut cases:

Any ORPS reportable violation of the LO/TO program.

A total of three LockOut/TagOut incidents were reported to EM HQ this quarter; two of those events were incidents involving an energized source, and are discussed below; one was reportable.

On November 4<sup>th</sup>, an administrative error in the LockOut/TagOut process occurred when tags were removed from an electrical system without the proper written authorization. A supervisor requested a tag removal from a LOTO Manager (LTM). The LTM gave him a LOTO removal request form, helped him partially fill it out and told him to complete it and return it for removal authorization. The supervisor thought he had verbal authorization and had the tags removed. The electrical circuits were verified to be in a safe configuration, there was no exposed energized electrical circuitry at any time (breakers were off at the power source).

#### Incidents involving an energized source:

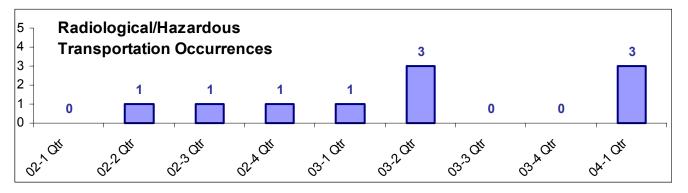
There were two (2) events reportable under this category this quarter. In late October, a D&D worker reset a breaker for a multi-plug electrical distribution box (turtle), without the required permissions. The supervisor turned on the main power to an air mover and noticed an electrical arc flash at the back of the air mover. There were no electrical shocks or personnel injuries. It was determined that the connection between the air mover and the turtle was likely not seated correctly.

The second incident was classified as a "Significant Concern"; during D&D activities in Building 778, a Construction Building Trades supervisor cut into an air line pressurized to 125 pounds per square inch. He had removed other air lines in 778 earlier in the week. The worker believed the air line was abandoned, and deliberately cut into it to begin removal. There were no injuries and no other equipment damage. There were no personnel injuries.

**Detailed Overview** 

# Safety CONT.

Ed Westbrook x 7074



## Rad/Haz transport incidents:

Any ORPS reportable transportation incident /accident involving radioactive and/or hazardous materials.

Three ORPS reportable transportation incidents involving radiological or hazardous substances took place this quarter. One involved a fatality just north of the Site when, according to preliminary reports, a south-bound automobile veered into the north-bound lane and collided with a flat-bed trailer transporting an intermodal container of non-regulated low level waste (asphalt) from Rocky Flats. The truck driver sustained minor injuries to his right hand. Radiological surveys and inspections of the waste package were performed, confirming that no breach had occurred. The driver of the automobile was pronounced dead at the scene.

The second incident, categorized as a Significant concern, involved incorrect shipping papers for a truckload of Low-Specific Activity 1 mixed waste to Envirocare. The truck driver had shipping papers for Trailer #121, but had incorrectly attached the wrong trailer (Trailer #113) to his truck, prior to departure. Transporter personnel subsequently faxed the shipping papers for Trailer #113 to Envirocare personnel, who accepted the mixed waste load. The transporter was directed to stop all shipments of Rocky Flats waste materials from their terminal until corrective actions are in place to prevent a recurrence of this incident.

One week later, a Utah State inspector at Envirocare found 4 out of 8 wing nuts "less then hand tight" on the man port of two tanker trucks that were transporting waste. The wing nuts are four inch bolts and are required to be "hand tight" prior to shipment. There is no torque requirement on the wing nuts prior to shipment. The two trucks at Envirocare are expected to be processed. No contamination was released.

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# PBD A 371 Complex

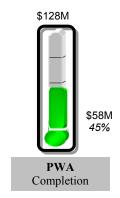
Warren Seyfert x5925

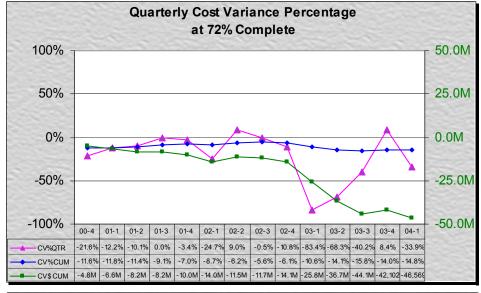
BCWS <sub>LC</sub>	436,817
ACWP <sub>CUM</sub>	361,353
BCWP <sub>CUM</sub>	314,784
BCWS <sub>CUM</sub>	307,209
CV <sub>CUM</sub>	-15%
Scope Completed	72%
Cost Expended	83%

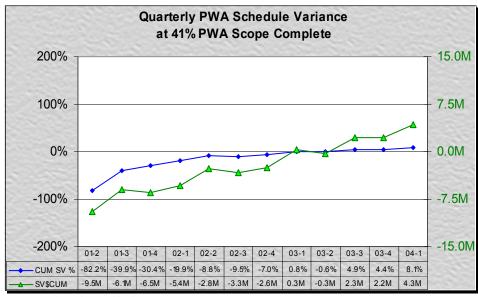
PBD A is over cost with a negative CV of -\$46.6M (-15%). Most of the Closure Project's negative CV is accumulated in this PBD. The negative SV has been recovered, and the PBD stands at 2% SV.

-\$66M in negative cost variance in PuSPS, Facility Mgmt, Waste Operations, and Measurements, is partially off-set by \$20M of positive CV in Project Mgmt, Deactivation, Decommissioning, Residues, and SNM Removal. The negative CV is not expected to be recovered in the limited amount of schedule and scope left in this PBD.

The contractor completed \$5.2M in PWA scope this quarter.
The RFPO validated EV on 371 Complex PWAs now stands at \$58M







#### Accomplishments this quarter:

- Completed storage pallet removal from the Central Storage Vault
- Finished sludge removal from Building 374 tanks
- Submitted DOP modification for Public Comment
- Completed 5 D&D PWAs
- Completed 3 D&D Dismantlement Sets

#### **Potential Impacts to Cost & Schedule:**

- Removal of pallet racks from the Central Storage Vault is on Critical Path for Site Closure
- Decontamination and removal of equipment from highly contaminated areas

#### **UPCOMING:**

Key Activities / Milestones / GFS/I

- Continue D&D
- Continue repacking TRU waste drums
- Approve Criticality Incredibility
- Resolve Public Comments on the Modification to the DOP
- Start removing pallet racks from the Central Storage Vault

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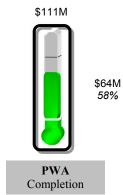


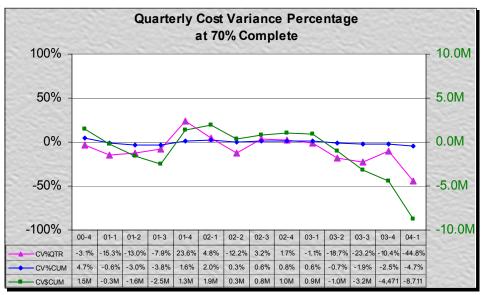
# PBD B 707 Complex

Gary Schuetz x3016

BCWS <sub>LC</sub>	267,869
ACWP <sub>CUM</sub>	195,480
BCWP <sub>CUM</sub>	186,769
BCWS <sub>CUM</sub>	175,296
CV <sub>CUM</sub>	-5%
Scope Completed	70%
Cost Expended	73%

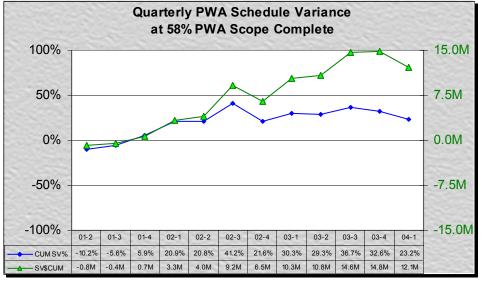
At the end of the 1st quarter FY-04, the Building 707 Closure Project reported 70 % progress on their Statused Baseline Plan which forecasts completion in June 2005. This project is slightly over cost and ahead of schedule, reporting a cost variance (CV) of - 4.7% and schedule variance (SV) of 6.5 %. These indicators are by comparison, similar to the previous several quarters. A total of six (6) decommission worksets were completed in the 1st quarter, worth \$3.97 million in Predetermined Work Activity (PWA) Earned Value (EV) credit. The cumulative PWA schedule variance is 23% (\$12.1M), a reduction from last quarters reported 33%.





#### Accomplishments this quarter:

 Six decommissioning worksets were completed. The sets were B8, J4, K5, C8, Set 4-2nd Floor, and Set 4-Type 2 Buildings.



#### **Potential Impacts to Cost & Schedule:**

- None

#### **UPCOMING:**

Key Activities / Milestones / GFS/I

- Complete five (5) decommissioning worksets during the next quarter.

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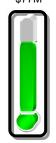
# PBD C 771 Complex

Warren Seyfert x5925

\$77M

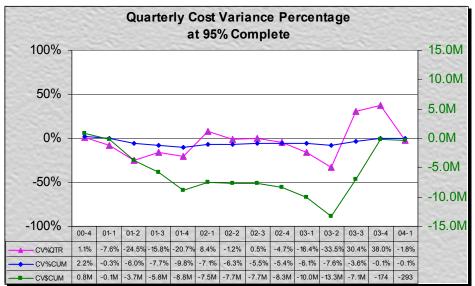
BCWS <sub>LC</sub>	232,023
ACWP <sub>CUM</sub>	219,839
BCWP <sub>CUM</sub>	219,546
BCWS <sub>CUM</sub>	210,047
CV <sub>CUM</sub>	0%
Scope Completed	95%
Cost Expended	95%

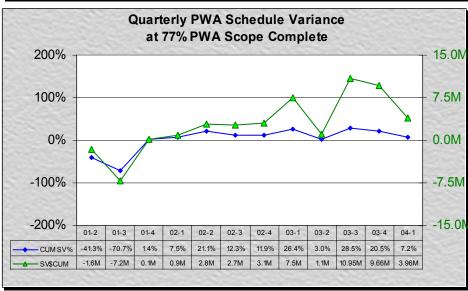
This PBD continues to be ahead of schedule and only slightly over budget. With 91% of the work scheduled to date, cumulative variances show an SV of +4.5% and a CV of -0.1%. Most of the negative cost variance continues to be in Support Services (-\$15M), offset by positive variances in the D&D program. KH completed \$2.5M of PWA earned value this quarter. The cumulative PWA schedule variance now stands at \$4.0M (+7%).



\$59M 77%

PWA Completion





#### Accomplishments this quarter:

- Completed five areas: AB (Annex)
   Dismantlement, AC (Locker Rooms)
   Structural Decontamination, AE
   (West Limited Area) Structural
   Decontamination, AG (Stack)
   Dismantlement
- Demolished Room 220 and East Dock (Building 774)
- Completed Building 771 MC&A Termination

## **Potential Impacts to Cost & Schedule:**

- Some areas are difficult to decontaminate by hydrolasing.
   Removal of concrete and shipment as Low Level Waste may be needed on a limited basis.
- Removal of contaminated infinity room (Room 141)

#### **UPCOMING:**

Key Activities / Milestones / GFS/I

- Continue Areas dismantlement, decontamination, and demolition.
- Independent Verification and Validation of radiation surveys

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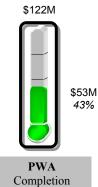


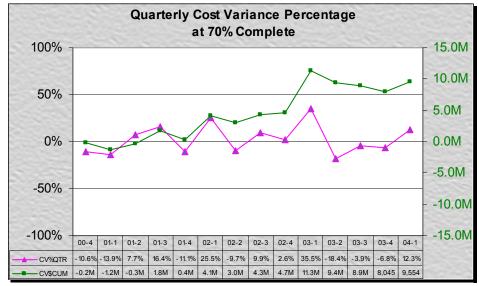
# PBD D 776/7 Complex

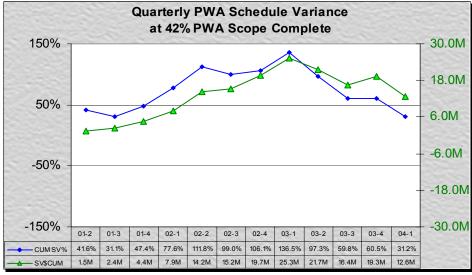
Gary Schuetz x3016

BCWS <sub>LC</sub>	268,472
ACWP <sub>CUM</sub>	179,302
BCWP <sub>CUM</sub>	188,856
BCWS <sub>CUM</sub>	166,429
CV <sub>CUM</sub>	5%
Scope Completed	70%
Cost Expended	67%

At the end of the 1st quarter FY-04, the Building 776/777 Closure Project reported 70 % progress on their Statused Baseline Plan which forecasts completion in May 2005. This project continues to perform under cost and ahead of schedule, reporting a cost variance (CV) of 5.1 % and schedule variance (SV) of 13.5 %. These indicators are consistent with performance seen for the last couple of years. A total of two (2) decommission worksets were completed in the 1st quarter, worth \$1.6 million in Predetermined Work Activity (PWA) Earned Value (EV) credit. The cumulative PWA schedule variance is 31% (\$12.6M) reflecting an expected reduction from last quarters reported 60%. Note: Since PWA earned value can only be claimed at completion and there are only a few, large PWAs left, positive PWA variance is expected to be consumed as this PBD nears completion.







#### Accomplishments this quarter:

- Two (2) decommission worksets were completed. The sets were 69 and 81.

#### **Potential Impacts to Cost & Schedule:**

- None

#### **Upcoming:**

Key Activities / Milestones / GFS/I

 Continue decontamination and characterization for demolition.

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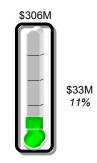
# PBD E Industrial / Site Services

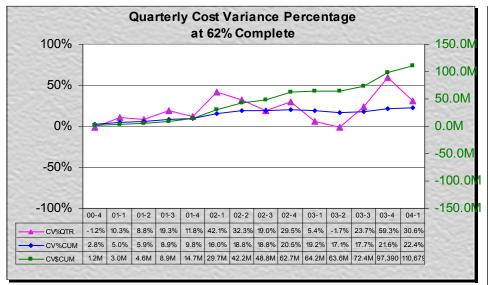
Gary Morgan, x6003

BCWS <sub>LC</sub>	792,396
ACWP <sub>CUM</sub>	382,812
BCWP <sub>CUM</sub>	493,491
BCWS <sub>CUM</sub>	399,019
CV <sub>CUM</sub>	22%
Scope Completed	62%
Cost Expended	48%

Project continues under cost and ahead of schedule. Cost variance is \$111M (22%). Schedule Variance is \$94M (24%). This PBD is responsible for 57% of the Closure Project's positive cost variance and 48% of the Project's positive schedule variance. Successes in this project have contributed significantly to accelerated closure of Rocky Flats.

Building 865 D&D completed this quarter for \$12.3M in PWA earned value. Although only 11% of all the PWAs scheduled for this PBD have been completed so far, the PWA SV on this PBD now stands at nearly \$30M - having completed more than 904% more PWA work than was scheduled todate.





#### **Quarterly PWA Schedule Variance** at 11% PWA Scope Complete 1000% 40.0M 800% 30.0M 600% 20.0M 400% 10.0M 200% 0% 0.0M -200% -10.0M -400% -20.0M -600% -30.0M -800% -1000% -40.0M 04-1 01-3 01-4 02-3 02-4 03-2 03-4 0.0% 100.0% 0.0% 0.0% 142.1% 189.1% 189.1% 189.1% 189.1% 531.0% 904.0% 0.0% CUMSV

#### Accomplishments this quarter:

- Building 865 PWA finished this quarter (the Cluster PWA having finished last quarter).
- 9,800 feet of steam lines cumulatively demolished out of an estimated 20,000 feet
- 664 feet of old process waste lines cumulatively removed
- B668, B984, B985, 989, B454, B455, B375, B549, B869, B119, 240 steam condensate storage, VV015 process waste vault, and tank 100 were all demolished.

#### **Potential Impacts to Cost & Schedule:**

- No negative impacts.

#### **UPCOMING:**

Kev Activities / Milestones / GFS/I

- Building 865 PWA will finish soon
- Buildings 991 and 881 will dominate work effort
- B-566 and glove boxes in B-559

0.0M

SV\$CUM

0.0M

-3.3M

0.0M

0.0M

4.7M

6.2M

6.2M

6.2M

17.5M

29.8M

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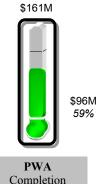
# PBD F Material Stewardship

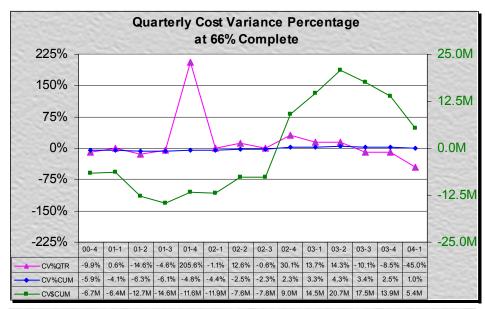
Lam Xuan x3035

BCWS <sub>LC</sub>	860,215
ACWP <sub>CUM</sub>	566,220
BCWP <sub>CUM</sub>	571,653
BCWS <sub>CUM</sub>	547,962
CV <sub>CUM</sub>	1%
Scope Completed	66%
Cost Expended	66%

With 66% of the work completed, this PBD is under cost and ahead of schedule. The PBD has a cost variance of +\$ 5.4M (+1%), and a schedule variance of +\$ 23.7M (+ 4%). The positive cost variance is mainly due to waste shipping efficiencies and acceleration, while the biggest cost overages are due to the need for a larger security force for longer than anticipated.

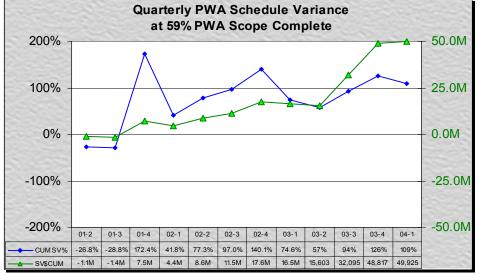
RFPO validated earned value of \$,116,269 of TRU, LLW, and LLMW of work completed





# Accomplishments this quarter: - ~ 19,948 m3 of LL Waste - ~ 3,104 m3 of LLM Waste - ~ 899 m3 of TRU Waste to W

- ~ 899 m3 of TRU Waste to WIPP in 115 shipments
- Completed processing, shipment and disposal of Solar Pond Sludge
- Shipped 10,557 tons sanitary waste
- Completed TRU classified Waste shipments to WIPP
- Began shipping TRU Vent Filter Corrosion waste to WIPP
- Completed shipping the remainder of TRU Solidified Organic waste to Argonne West for solid sampling



# Potential Impacts to Cost & Schedule:

Receiver sites for LLMW (>10nCi/g)

#### **UPCOMING:**

Key Activities / Milestones / GFS/I

- Shipping bypass Sludge to WCS for treatment; demonstrate interim storage at WCS (or return to RFETS)
- Expand T-1 Treatability demonstration (100 containers)
- Complete Record of Decision March 2004

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# PBD G

## Remediation

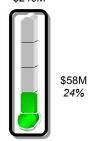
Norma Castañeda x4226

\$240M

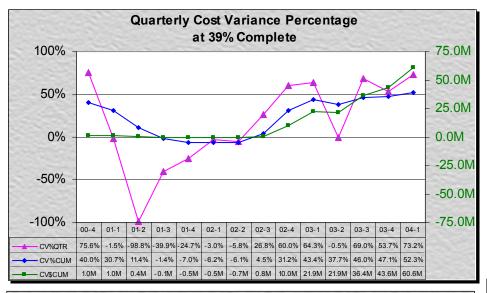
BCWS <sub>LC</sub>	295,956
ACWP <sub>CUM</sub>	55,217
BCWP <sub>CUM</sub>	115,820
BCWS <sub>CUM</sub>	87,323
CV <sub>CUM</sub>	52%
Scope Completed	39%
Cost Expended	19%

This PBD is ahead of schedule (33%), and under cost (52%). Several activities were accelerated this quarter, but those gains are somewhat offset by delays in closing the Sanitary Sewer system and in some UBC work.

Kaiser-Hill claimed Earned Value on 4 PWAs this quarter, while DOE reviewed and validated three for EV credit of \$17.9M. The 3 PWAs were IHSS Groups SW-1 (Incinerator); 400-3 (B444/447); and 900-3 (904 Pad). The fourth PWA that was incomplete was IHSS Group 700-4 (B771/774). DOE has not received CDPHE approval on this Closeout Report.

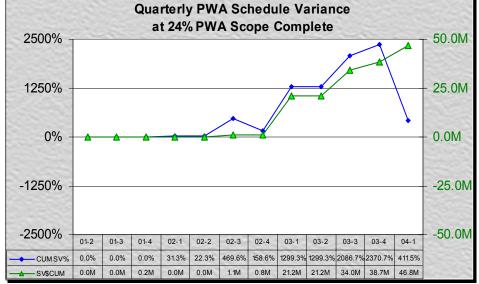






#### Accomplishments this quarter:

- Completed 903 Pad Remediation
- Completed UBC 865 slab removal
- Completed UBC 441 tank removal
- Completed SW-1 Incinerator removal
- Completed Re-pack of TRU intermodals from 903 Pad remediation
- Iron media replacement at East Trenches Plume treatment cells completed
- Characterization completed for OPWLs outside of building footprints
- Completed public comment period for Present Landfill IM/IRA



#### **Potential Impacts to Cost & Schedule:**

None at this time

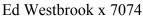
#### **UPCOMING:**

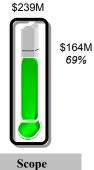
Key Activities / Milestones / GFS/I

- Continued disposition of 903 Pad and Inner Lip waste
- OPWL Remediation
- Closeout Report for Soil Vacuum Demo
- Soil sampling at UBC 776/777
- UBC 779 slab removal, OPWL, etc.
- DOE review of Original Landfill IM/IRA
- DOE review of IM/IRA for the 903 Lip Area, windblown area, and surface soil in OU1

# PBD H

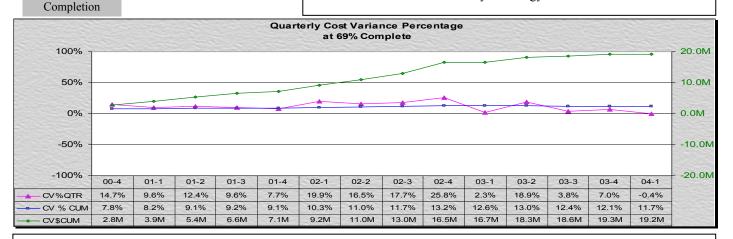
# Engineering, Environmental, Safety, Health & Quality





BCWS <sub>LC</sub>	239,308
ACWP <sub>CUM</sub>	144,916
BCWP <sub>CUM</sub>	164,149
BCWS <sub>CUM</sub>	164,146
CV <sub>CUM</sub>	12%

This level of effort (LOE) PBD is +12% (+19M) under budget – no change from last quarter. The contractor attributes the positive CV in this PBD in large part due to staff vacancies. It is anticipated that this positive CV will decrease over the next quarter due to additional expenditures on outside consultants to perform ISM and COOP assessments. These assessments are being driven by concerns identified in the December 2, 2003 letter from the DNFSB to the Secretary of Energy.



#### Accomplishments this quarter:

- JCO to authorize repackaging TRU sludge on the 750 Pad was approved.
- 779 Pad Waste Management Cell was deactivated and turned over to RISS.
- JCO to authorize plasma arc size reduction in non-sprinkler protected tent in B707 was approved.
- Auditable Safety Analysis (ASA) for remediation of the 779 Project Area as a Radiological Facility was approved.
- Criticality Safety completed Annual Assessments of B371/374 and B771/774.

#### **UPCOMING:**

Key Activities / Milestones / GFS/I

- None.

#### **Potential Impacts to Cost & Schedule:**

None.

# \$591M \$320M 54%

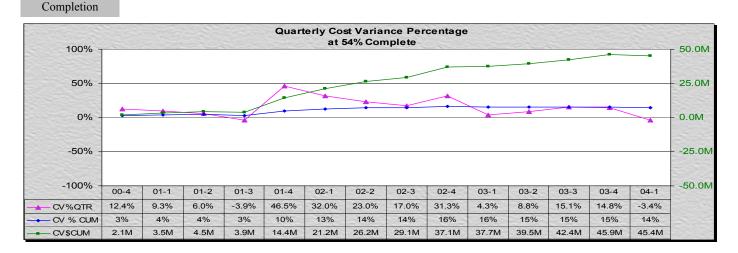
Scope

	ā.
BCWS <sub>LC</sub>	590,251
ACWP <sub>CUM</sub>	274,716
BCWP <sub>CUM</sub>	320,142
BCWS <sub>CUM</sub>	320,142
CV <sub>CUM</sub>	14%

# PBD J Support Project Betsy Jordan x 5921

This level-of-effort PBD has completed 54% of its workscope and expended 47% of its costs. PBD J is currently 14% under cost with a cumulative CV of \$45M.

This PBD is also a major contributor to the Closure Project's successful performance with 23% of the project's positive cost variance.



- JAA –The cost variance for the KH Executive Office was +84%, or \$18.8M. The positive CV is primarily due to cost risk funds held in management reserve (contingency) in this cost account, along with previous understaffing.
- JAB General Counsel & Audit was +18%, or \$1.4M. The positive CV is due to historical under staffing.
- JAC Planning and Integration (including Communications) cost variance was 21% or \$5.6M. The positive CV is due to P&I staff members charged against project activities supported, and reduced consulting subcontract costs.
- JAE Steelworker Overhead cost account was 24% or \$3.5M. The positive CV is due to historical difference between the budgeted amount of lump sum bonuses planned for distribution and the amount actually paid.
- JAG Fringe Benefits- was +105% or \$6.1M. The positive CV is due to a greater than planned recovery of fringe benefits costs because more labor hours were worked than originally planned.

#### Accomplishments this quarter:

The Career Transition Center (CTC) extended services to all site subcontractor employees. Formerly these services were available only to KH and other major contractors. The CTC held special classes for approximately 80 SPO's who were about to be laid off. Aprrox. 50 of the guards have accepted positions at other DOE sites. A second job fair focusing on jobs in the Metro Denver area and in Colorado was held in October.

#### **UPCOMING:**

Key Activities / Milestones / GFS/I

- None

#### **Potential Impacts to Cost & Schedule:**

- None.

Unclassified / Not UCNI

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# **Rocky Flats Budget**

Lance Schlag x 3171

# **Performance**

EY06 Budget Authority Planned \$9.6 M, Obligated through December (\$0.4M) FS30 Budget Authority Planned \$0.2 M, Obligated through December - \$0M.

# Issues/Concerns

FY 2004 Congressional rescissions, reductions and taxes allocated against RFPO funding resulted in an overall reduction of \$8.5 M which was covered from RFPO allocations. The FY 2004 S&S Appropriation for the Site exceeds Site requirements by approximately \$7 M. RFPO will request an internal reprogramming of \$5 M and the balance will be held in RFPO Management Reserve. RFPO plans on providing KH the full contractual requirements of \$639.4 M of which \$21 M will be S&S funding.

# **Upcoming Focus**

Internal reprogramming will follow final determination of KH FY 2004 S&S requirements.

.

# **Transition to Legacy Management**

Bob Birk x 5921

# **Background**

RFPO's Sunset Project and KH's Program Termination Efforts identified functions and physical equipment that are expected to continue past Physical Completion. The Integrated Site Transition Checklist captures these functions and items. Physical Completion is defined as the point in the closure project where KH has performed the work necessary to satisfy the seven (7) completion criteria identified in the contract statement of work. It is expected that responsibility for these functions and physical property will transition to Environmental Management (EM), LM or the U.S. Fish and Wildlife Service (FWS). The goal of this transition is to achieve zero service disruption of critical activities without negative impact to the closure mission.

Transition teams and working groups were formed consisting of representatives from RFPO, KH, and OLM to address the following areas: Program Management, Environmental, Communication, Procurement, Finance and Legal, Business and Administration, Property, and Personnel.

# **Accomplishments:**

- The Integrated Site Transition Checklist has been put under change control.
- The OLM Rocky Flats Lead has established dialogue with stakeholders and regulators.
- The OLM Rocky Flats Lead is now participating in RFCA negotiations.
- The transition working groups are currently scrubbing the Transition Checklist for completeness, priority items, issues and activities requiring long lead times, potentially high costs and items requiring management attention.
- The Rocky Flats Reading Room and CERCLA Administrative Record have been identified as candidates for early transition.

# **Upcoming Focus**

- Disposition of classified and unclassified hard copy and electronic records
- Disposition of environmental and administrative databases, software applications and computer hardware
- Disposition of property, leases and easements
- Management continuity of employee/retiree benefits and insurance programs.

# **Issues/Items Being Worked**

- LM has yet to hire a contractor to administer and manage pensions and benefits. Because of the enormous scope and importance of this issue, either a contractor needs to be hired and integrated into the transition in the short term or a contingency plan must be formed to continue managing pensions and benefits after declaration of Physical Completion.
- The transition of electronic applications and databases is a significant task which requires detailed understanding of what is to be transferred and how these applications and databases will be utilized after closure. Much of the data is to be migrated to different software platforms, which requires substantial effort. The challenge is to migrate all of the data and transfer responsibility ensuring no disruption of employee benefits or long-term environmental monitoring commitments. DOE LM has been provided detailed information to support decisions regarding which applications and databases are to be transferred.
- EM is currently and will continue to provide support to the Cold War Museum development effort by providing information and artifacts. DOE responsibility for the ex-officio to the Museum Board will be transitioning from EM to LM.

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# Legacy Management CONT...

# **Needed Decisions or Support**

- Researching and providing information to the Office of Environment, Safety, and Health (EH) in support of Energy
  Employees Occupational Illness Compensation Program Act (EEOICPA) claims is currently provided by KH and will be
  the responsibility of DOE after Physical Completion. It has not yet been determined whether LM or EM will be
  responsible for providing this support to EH.
- Requested Action: EM-1 and LM-1 should determine the lead office for providing this support and provide a Point-of-Contact.
- Workers Compensation claims that are currently being processed by KH will become the responsibility of DOE after
  Physical Completion. It has not yet been determined whether LM or EM will be responsible for providing this support.
  LM's position is that EM maintains responsibility.
- Requested Action: EM-1 and LM-1 should determine the lead office for providing this support and provide a Point-of-Contact.
- There is a potential that a small population of Orphan Wastes from the Rocky Flats Closure Project will remain after Physical Completion (either at on- or off-site locations). Issues associated with disposition of these wastes are being aggressively worked. However, in the event that Orphan Waste remains at Physical Completion, programmatic responsibility needs to be assigned. It has yet to be determined whether EM or LM will be responsible for orphan wastes that may remain.
- Requested Action: EM-1 and LM-1 should determine the lead office for providing this support and provide a Point-of-Contact.
- The KH contract date for completion of the Rocky Flats closure project is December of 2006. Until recently, LM has been planning to this date. Based on project performance data, Physical Completion could be achieved by the fall of 2005, which is 1 year prior to the contract date. As a result, funding for LM to accept responsibility for those functions that must continue after physical completion must be in place at the start of FY06.
- Requested Action: EM-1 and LM-1 concur with this approach for development of the FY06 budget. This is a LM responsibility with David Lang as the Point-of-Contact.

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# Appendix A Orphan Wastes

POC: Dave Hicks, x3122 Rich Schassburger, x4888 Lam Xuan, x3135

**Update as of** December 2003

## **Issues:**

• Lack of Disposal Capability for Mixed Low-Level Waste greater than 10 nanocuries per gram

The site currently lacks a disposal site for mixed low-level waste (MLLW) with activity levels greater than 10 nanocuries per gram (nCi/g). Two sites have been identified by the Waste Management Programmatic Environmental Impact Statement (PEIS): Hanford and the Nevada Test Site (NTS). RFETS staff continues to work with both Hanford and NTS personnel by providing waste forecast and waste profile data. RFETS also continues to explore alternative disposition pathways for this waste.

Hanford is not available due to open issues with the Hanford Solid Waste Program Environmental Impact Statement. The Record of Decision for this EIS is not expected until February 2004 at the earliest. NTS has submitted a permit to the State of Nevada to allow disposal of offsite MLLW. This permit is currently under review by Nevada. It is not known when this permit will be approved and disposal of Rocky Flats' MLLW could commence.

The lack of a designated disposal path complicates the Site's plans for treatment of MLLW with activity greater than 10 nCi/g. There are STP milestones to complete offsite treatment of approximately 1000 cubic meters of MLLW, most of it greater than 10 nCi/g. Currently, there is no designated method for treating these wastes, and without a designated disposal path and its associated acceptance criteria, finding one becomes more difficult. Until a disposal option is available, this waste will either need to be; stored offsite at a commercial treatment facility at increased cost to the closure project; returned to the site after treatment, again with increased costs and potential impacts to D&D work; or stored at another DOE facility. Commercial facilities are also restricted by their license limits for storage of radioactive material.

Additionally, onsite storage capacity is diminishing as facilities are being decommissioned and demolished. Some of these wastes may be segregated with a subset falling below 10nCi/g or above 100nCi/g, which may then have current disposal options. The Site is evaluating placing MLLW >10 nCi/gm into interim storage at an offsite commercial facility until a permanent disposal facility is available. Interim offsite storage will allow existing onsite waste facilities to be decontaminated and decommissioned in accordance with the "2 to Go" schedule. The RFPO is working with Kaiser-Hill to resolve issues relating to offsite storage, including regulatory and contractual requirements.

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# Appendix A CONT...

#### TSCA Incinerator

The Toxic Substances Control Act Incinerator (TSCAI) in Oak Ridge, Tennessee, is currently the only available facility for some RFETS wastes requiring incineration. Due to higher than expected radioactivity and/or beryllium levels in two of our waste streams (*PCB Solids* and *Organic Solids*, *Non-PCB*), these wastes no longer met the TSCAI acceptance criteria and RFETS was unable to meet two of its FY03 STP milestones. The waste streams were subdivided to split out the high beryllium population and the wastes meeting the TSCAI acceptance criteria were shipped for treatment in early January 2003. Treatment options are being evaluated for the remainder of these waste streams, and one-year extensions were approved by the Colorado Department of Public Health and Environment (CDPHE) on the STP milestones.

#### Availability of Commercial Treatment Facilities

Some existing wastes are without an available treatment facility. For MLLW, there are several waste streams that do not have a clearly identified treatment option:

- Trench T-1 remediation waste (~245 cubic meters)
- PCB Solids and Organic Solids, non-PCB (12 cubic meters)
- PCB Liquids (~3 cubic meters)
- Waste Chemicals (~25 containers)

RFETS is working with EM-23 on the Trench T-1 waste stream and is currently performing treatability studies at a commercial vendor. The PCB/Organic Solids waste streams are relatively small and procurement packages to solicit proposals from treatment vendors are being prepared by Kaiser-Hill. Review of the Waste Chemical population revealed 18 containers that have high beryllium content and 7 containers that have EPA code F027. No commercial facilities have been identified that can treat these wastes and Kaiser-Hill is evaluating treatment options. The Site is evaluating placing these MLLW into interim storage at an offsite commercial facility until a treatment technology is developed. Once a treatment plan is identified the waste will be treated to meet Land Disposal Restrictions and then remain in interim storage until a permanent disposal facility is available. Interim offsite storage will allow existing onsite waste facilities to be decontaminated and decommissioned in accordance with the "2 to Go" schedule. The RFPO is working with Kaiser-Hill to resolve issues relating to offsite storage, including regulatory and contractual requirements.

<u>Pacific EcoSolutions, LLC</u> (formerly known as ATG), located in Richland, WA, maintains compaction/macroencapsulation treatment capabilities producing a waste product acceptable for Hanford disposal. PEcoS also maintains sludge stabilization capabilities and is able to receive and process unique waste matrices. PEcoS is presently the only facility available to RFETS to macroencapsulate LLMW debris with an activity greater than 10 nCi/g. PEcoS remains of interest to RFETS as an efficient treatment conduit of waste that may be destined for Hanford disposal.

# Appendix A CONT...

<u>PermaFix Environmental Services</u> includes the PermaFix facility in Gainesville, Florida; Diversified Scientific Services (DSSI) in Kingston, Tennessee; and Material and Energy Corporation (M&EC) in Oak Ridge, Tennessee. RFETS has utilized the DSSI boiler and industrial furnace (BIF) for destruction of waste chemicals. RFETS personnel will evaluate additional services and technologies offered by PermaFix including: repackaging, debris washing, stabilization, and chemical oxidation. In addition to treatment of LLW and LLMW chemicals, PermaFix is under consideration for the treatment of various unique RFETS LLM waste streams.

Envirocare presently provides treatment and disposal services for nearly all LLMW debris with an activity less than 10 nCi/g generated at RFETS. RFETS ships waste to Envirocare to macroencapsulate debris, macroencapsulate oversize debris (including gloveboxes), direct dispose environmental restoration soil and soil-like material, and direct dispose oversize LDR-compliant debris. Envirocare also offers treatment/stabilization services that RFETS utilizes, or has utilized, for solar pond sludge, incinerator ash, mercury contaminated crushed light bulbs, and lead acid batteries. A thermal desorption unit is also available for organics treatment. Envirocare also receives RFETS Alternate Water Treatment System (AWTS) liquids for solidification and disposal.

Waste Control Specialists (WCS), located in Andrews, Texas, currently maintains waste stabilization, shredding and repacking capabilities. Stabilization includes use of cement grout materials to reduce the leachability of regulated metals and form a solid matrix. WCS possesses a Class A and B/C radioactive license enabling the receipt and treatment of mixed waste with activities greater than 10 nCi/g for storage and treatment. In October 2003, WCS was awarded the contract to treat. Shipments of over 400 m3 of solidified bypass sludge to WCS began in November 2003 and are expected to continue at a rate of three per week until March 2004. Treated waste will be stored at WCS until a disposal path is identified. WCS is also utilizing a GeoMeltä in-container vitrification system at their Andrews facility. This batch process will be used to treat non-STP regulated depleted uranium chip waste in a treatability study. Texas proposed legislation to establish a low level radioactive disposal site in west Texas is under State House consideration and a bill may be finalized within a year. The proposed plan would allow for the burial of up to six million cubic yards of waste and WCS may be the preferred site.

#### • TRU disposition at WIPP

Pathways for all transuranic (TRU) wastes have been identified. All TRU waste will be disposed at WIPP. Special characterization and transportation needs are being resolved for the following:

1. Legacy Solidified Organic TRU (OASIS) ~744 drums
Solid Core Sampling at Argonne West Lab (statistical sampling of about 36 drums of the OASIS and aqueous TRU waste populations); first shipment was completed March 13, 2003. WIPP performed audit of Argonne West Lab the week of May 19, 2003. Argonne received the last shipment on 10/8/03 and all coring and analysis have been completed.

# Appendix A CONT...

- Extended gas generation testing at Argonne West for wastes with Hydrogen Gas Generation Problem is no longer needed. RFETS is conducting the gas generation testing of all organic containers on site. For those containers failing the total gas generation testing, the site will need NRC's approval for the use of dunnage and reduced shipping time in TRUPACT-II. WIPP expects NRC's approval of TRAMPAC Rev. 20 by August 2004.
- 2. Solidified Aqueous TRU (~1040 drums)
  - Solid Core Sampling at Argonne West Lab (statistical sampling of about 46 drums of the OASIS and aqueous TRU waste populations). *See discussion in item 1, above.*
- 3. Organic TRU liquids (~50drums)
  - RFETS conducts manual coring method on site. WIPP performed the audit the week of July 22, 2003. Shipping is planned for FY04.
- 4. Disposal of Classified TRU waste at WIPP (224 drums)
  - The Site completed all classified waste shipments to the WIPP on 12/1/03.
- 5. TRU waste contaminated with PCB > 50 ppm ( $\sim$ 13 drums)
  - EPA issued the approval decision for public review and the comment period was completed on 2/28/03.
  - WIPP submitted the Class 2 permit modification to NMED for approval on May 21, 2003. Approval from NMED was received on September 11th.
  - DOE HQs GC-1 is making recommendation to the Secretary to either make policy or delegate to subsidiary managers to designate waste for disposal at WIPP.
  - RFETS is planning to ship PCB waste to WIPP by spring 2004.

# **Background:**

Orphan wastes are mixed or PCB wastes that do not have a treatment plan and/or do not have a disposal site available. As required by the Federal Facility Compliance Act of 1992, a Compliance Order on Consent was signed in 1995 to implement a treatment plan for those wastes in violation of the one year RCRA storage prohibition. This Site Treatment Plan (STP) describes the treatment options for each waste stream and establishes milestones on a rolling basis through negotiations with the State

Milestones are proposed and updated in the Annual Progress Report and Quarterly Progress Update reports. Compliance with the STP is necessary to allow the site to continue storage of mixed wastes in excess of one year without being subject to fines or penalties. To date all milestones have either been met or have been extended by the State. RFETS has several mixed waste streams with milestones due in FY 2004. RFETS continues to make progress in finding treatment options for wastes. EM-23 is providing technical support and funding to find solutions for treatment challenges.

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# Appendix A CONT...

# **Impacts:**

- 1. If treatment and/or disposal facilities are not found for these wastes, they would have to be stored at RFETS or another DOE site or at a commercial facility, after closure.
- 2. Lack of disposal capability may result in increased storage and/or transportation costs.
- 3. Request extension of STP Milestone(s) from the CDPHE if necessary.

# **Recommendations:**

Continue partnering with K-H, and work with EM-23 to identify treatment technologies for:

- T-1 Trench Material Disposition Plan
- PCB Solid and Organic Solids, non-PCB Treatment
- Brief manager monthly on status of Orphan Wastes.

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# **Appendix B** 903 Pad Remediation Waste

Norma Castañeda x 4226

Data as of January 2004

## **Issue:**

903 Pad Waste

A total of 178 intermodals were being held for off-site waste disposal due to soils that have contamination levels greater that the disposal facility waste acceptance limits.

# **Status:**

125 of the 178 containers were released for shipment based on December sampling data. The December sampling involved taking a number of containers to B664 for assay measurements.

Thirty-seven 37 intermodals were sampled the week of January 19, 2004; with results between 21-40 nCi/g Alpha. The containers were released for shipment.

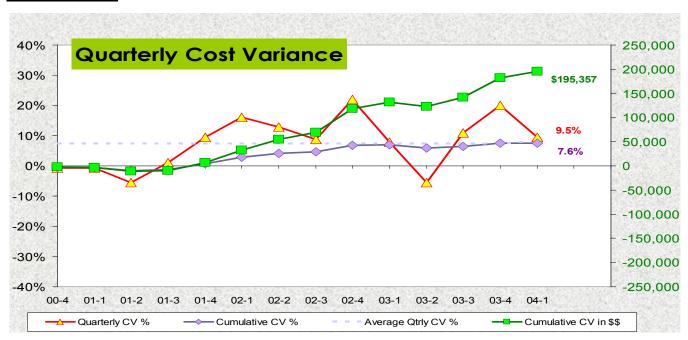
The remaining 15 containers are LDR non-compliant. Three will be treated at Envirocare, and the remaining 12 will need to be re-packed/blended.

LDR- Land Disposal Restriction nCi/g- nanocuries per gram

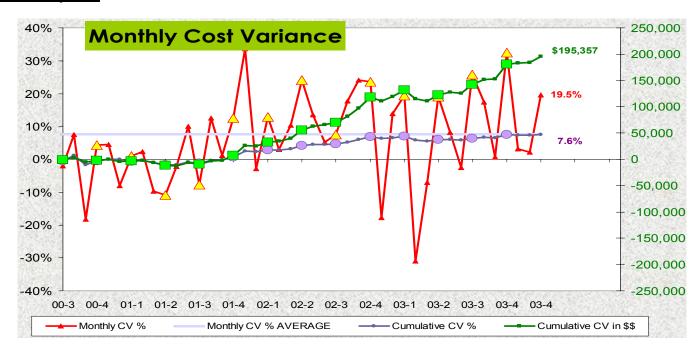
# **Appendix C**Cost Variance Trending

The following charts depict Project cost variance trends by quarter and monthly as referenced in the Cost section of the Executive Summary.

## Quarterly CV



# **Monthly CV**

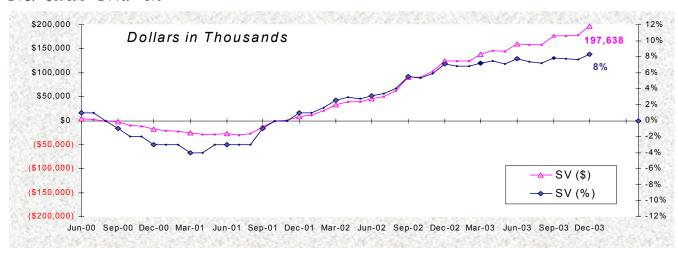


# Appendix D Other Schedule Performance Indicators

The following charts depict Project schedule variance metrics used to evaluate K-H schedule performance as referenced in the Schedule section of the Executive Summary.

#### **Traditional Schedule Variance**

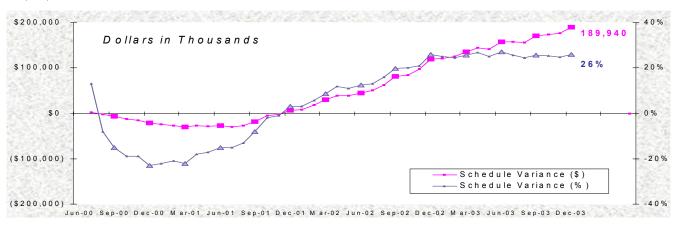
SV\$: +\$198M SV%: +8%



Traditional Schedule Variance (SV) for target activities was \$176M and 8% at the end of FY 2003.

#### **Modified Milestone Schedule Variance**

SV\$: +\$190M SV%:+26%



About 46% of Modified Milestone activities were scheduled to be complete at the end of this quarter and 58% were completed. The current Budgeted Cost of Work Performed (BCWP) for these modified milestone activities is \$921M, with a life cycle BCWS for these activities of \$1.6 billion (B). The Modified Milestone SV improved \$18.5M since last quarter. That positive gain is due mostly to about \$16.5M of additional workscope completed in the Industrial and Site Services, and Environmental Remediation Projects, respectively. Positive gains were offset by ~\$3.6M from delays in B774 decommissioning.

# Appendix D CONTINUED

## **P3** Completion

Estimated Completion Date: 15 December 2006

The *K-H generated* Estimated Completion Dates (ECDs) from the P3 schedule are represented below. K-H and RFPO continues to examine critical path activities to identify schedule acceleration opportunities. RFPO is monitoring this critical path and continues to utilize December 15, 2006 as the Estimated Completion Date.

PBD	<b>Activity Description</b>	Baseline Early Finish	Statused Early Finish
Α	B371	11-Oct-06	19-Oct-05
В	B707	13-Mar-06	07-Jun-05
С	B771/774	18-Aug-04	30-Sep-04
D	B776/777	31-Oct-06	16-May-05
Ε	Industrial Sites	11-Oct-06	15-Sep-05
F	Material Stew.	13-Dec-06	03-Nov-05
G	ER	14-Dec-06	28-Nov-05
	AL	L 14-Dec-06	28-Nov-05*

<sup>\*</sup> Under RFPO Review

## **Comparative Schedule Metrics**

The project-level positive schedule variances reflect the contractor's continued success at accelerating workscope. However, the majority of accelerated activities have been in Environmental Remediation and the decommissioning of structures and facilities in the industrial zone (PBDs G and E) – not on the Critical Path. This is the second quarter since the project began that the percent schedule variance on all of the real work (non level-of-effort) PBDs is positive.

Project		SV <sub>TRAD</sub>	SV <sub>PWA</sub>	SV <sub>MM</sub>	SV <sub>P3</sub> +/- Days
1A	371 Complex Project	2%	8%	6%	222
1B	707 Complex Project	7%	23%	16%	193
1C	B771/774 Closure Project	5%	7%	6%	-30
1D	B776/777 Closure Project	13%	31%	27%	369
1E	Industrial and Site Services Project	24%	904%	77%	244
1F	Material Stewardship Project	4%	109%	16%	252
1G	Environmental Remediation	33%	411%	36%	239
_	Total Project:	8%	* 61%	26%	239 **

<sup>\*</sup> RFPO Validated Percentages differ from the KH reports

<sup>\*\*</sup> Under RFPO Review

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# **Project Metrics**

Project Metric	Life Cycle Planned <sup>1</sup>	Actuals to Date	% LC Complete	CPB Planned at end of year	FY Completion Status	Actuals this Quarter	FY Actuals	FY Plan (AWA) <sup>2</sup>
Low Level Waste Disposed (m <sup>3</sup> )	184,475	119,549	66%	116,662	Exceeded Plan to-date	19,948	19,948	54,000
Low Level Mixed Waste Disposed (m <sup>3</sup> )	44,614	29,479	67%	10,911	Exceeded Plan to-date	3,104	3,104	3,500
TRU Waste Disposed (m <sup>3</sup> )	12,355	9,113	73%	9,688	94%	899	899	4,600
B371 Project Work Sets	60	25	42%	33	76%	3	3	26
B707 Project Work Sets	98	68	69%	72	94%	6	6	16
B771 Project Work Sets	106	76	72%	106	72%	5	5	35
B776 Project Work Sets	82	77	94%	72	Exceeded Plan to-date	2	2	8
Facilities Demolished	290	149	51%	141	Exceeded Plan to-date	22	22	61
Nuclear Facilities Decommissioned	6	1	17%	2	50%	0	0	
Radioactive Facilities Decommissioned	54	19	35%	14	Exceeded Plan to-date	5	5	
Industrial Facilities Decommissioned	317	216	68%	197	Exceeded Plan to-date	17	17	
Environmental PWAs Completed	65	25	38%	19	Exceeded Plan to-date	3	3	8
<b>Environmental Remediation Sites Completed</b>	360	207	58%	182	Exceeded Plan to-date	20	20	24
Gloveboxes removed	1,324	1,136	86%	1,324	86%	89	89	277

<sup>&</sup>lt;sup>1</sup> From Original CPB, except gloveboxes <sup>2</sup> with updated KH 2004 waste estimates

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# **Key Definitions / Terms**

#### **Rocky Flats' schedule performance indicators:**

All indicators (except P3) use the standard formula SV=BCWP-BCWS and are measured in dollars, not time. Performance is measured against the Life-Cycle Baseline as presented in June 2000 with minimal adjustments approved through our rigorous Change Control Process. The indicators defined below differ mainly in which budgeted costs are included in the analysis.

**Traditional Schedule Variance (SV**<sub>TRAD</sub>): This indicator addresses schedule performance compared to plan for the entire project contracted with Kaiser-Hill. It includes all "Target" costs as defined by the contract (EW05, EW02, FS40, GG08, YN01, and NN61). It does NOT include budgeted costs for things like performance fee, technology deployment, and program (RFPO) funds. A positive variance means that, compared to the original plan, more work was accomplished than planned. A negative variance means that less work has been accomplished than planned.

Modified Milestone Schedule Variance ( $SV_{MM}$ ): This schedule performance indicator is designed to focus on all the 'real' work at the site. It removes level-of-effort activities from the analysis, but adds the Technology Deployment budget. Again, the variance indicates that more work or less work was accomplished than planned.

Predetermined Work Activities Schedule Variance ( $SV_{PWA}$ ): In order to best assure that the government is awarding performance fee for the accomplishment and acceleration of the most important work at Rocky Flats, our contract with Kaiser-Hill includes a list and schedule of ~900 "Predetermined Work Activities" against which performance is measured and provisional fee is paid. Generally,  $SV_{PWA}$  calculations allow for earning value only when an activity is 100% complete (all or none), unless the activity is a quantity-based measure. These activities represent critical work necessary to the timely closure of the Site, and performance is measured against the baseline schedule set out at the beginning of the contract. Although the contractor is free to realign specific work activities as they see fit, the dollar amount of work accomplished against these critical activities is expected to remain on plan to facilitate timely closure of the site.

**Primavera Project Planner Schedule Variance (SV<sub>P3</sub>):** In contrast with the previous indicators, the P3 schedule variance is measured in units of time (days). The Primavera project scheduling software computes the longest (critical) path through the contractual work on the Project and arrives at the Statused Early Finish, (a.k.a. Estimated Completion Date). Variance is measured against the Baseline Early Finish as established in June 2000.

**Orphans – Low Level Mixed Waste Orphans.** Wastes which must be removed from the Site but for which no disposal / treatment path has been identified and/or approved.

**D&D – Deactivation and Decommissioning.** Deactivation: the process of placing a "building" in a safe and stable condition. Decommissioning: All activities that occur after deactivation. Includes decontamination and dismantlement /demolition.

**M5 - RFCA Earned Value Aggregate (over 50%) Milestone.** Fiscal Milestones M1 – M4 require that 50% of the FYBCWS in each individual category be completed in that fiscal year. The FY M5 Milestone tracks the dollar value of the remaining BCWS in those categories for the fiscal year and requires that it be completed before the end of the *following* fiscal year. The M5 Earned Value Milestone can be satisfied with any combination of BCWP from LLW, D&D, ER, and TRU. However, the M5 milestone must be completed for each fiscal year before BCWP can be applied to Milestones M1 – M4 in the following year.

**PBD A – 371 Complex Project.** Liquid waste ops, Plutonium Stabilization & Packaging System (PuSPS), repackaging of residues, SNM removal (including shipping), and D&D. Building demolition by October 11, 2006.

**PBD B – 707 Complex Project.** SNM holdup removal, consolidation of SNM into B371, classified matter removal, and D&D. Building demolition by 3/1/06.

**PBD** C – **771** Complex Project. Complex D&D and D&D Programs (site decommissioning program and EM-50 funded projects). Building demolition by 8/04/04.

**PBD D – 776 Complex Project.** D&D. Building demolition by 10/27/05. Removal of the slab/foundation by 4/26/06 and project completion by 10/31/06.

PBD E – Industrial / Site Services Project. The industrial and site services portion of the RISS Project, and other bldg D&D.

**PBD** F – **Material Stewardship Project.** Technical program direction and operational support for commodities, engineered services, procurement, traffic & transportation, and disposition of waste.

**PBD G** – **Remediation Project**. The Environmental Restoration (ER) Program portion of the RISS project. The overall scope includes Industrial Area and Buffer Zone Closure and environmental restoration including any remaining characterization.

**PBD H – Engineering, Environmental, Safety, Quality, and Health**. Infrastructure. Includes; project management, assessment, oversight, regulatory compliance and monitoring, waste certification, technical training, Nuclear Safety and Licensing, Criticality Safety, Fire Protection, Engineering, Safety/Work Control, and Radiological Protection.

**PBD J – Support Project**. General Counsel & Audit (GC&A), Strategic Planning & Integration, Administration, and K-H Executive Office.

Reviewed for Classification 31 July 2003 Rod Hoffman Unclassified / Not UCNI Appendix F

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